Claims

1. Method of verifying the authenticity of a security document, the security document including a first at least partially transparent portion and an optical projection element within or superposed with the first at least partially transparent portion, the optical projection element acting to transform a light beam passing from a light beam source through said first at least partially transparent portion into a patterned beam of selected design, the method including the steps of:

positioning the security document such that the light beam is transmitted through the first at least partially transparent portion and the patterned beam is projected onto a viewing surface, and

verifying the presence of a patterned image by the impingement of the patterned beam on the viewing surface.

2. Method according to claim 1, wherein the security document includes an opacifying portion, the method further including the step of:

folding the security document such that the patterned beam is caused to impinge upon the opacifying portion which thus acts as the viewing surface.

3. Method according to claim 2, wherein the opacifying portion of the security document is remote from the first at least partially transparent portion.

4. Method according to any one of the preceding claims, wherein the light beam source is a directional light beam source.

5. Method according to claim 4, wherein the light beam source is a point-of-sale light source device.

6. Method according to claim 5, wherein the point-of-sale light source device is a laser or an LED based device.

7. Method according to claim 6, wherein the light beam source is a bar code scanner.

8. Method according to any one of the preceding claims, wherein the optical projection element acts to generate the patterned beam by diffraction of the light beam transmitted through the security document.

9. Method according to any one of the preceding claims, wherein the security document includes a second at least partially transparent portion, the method further

including the step of:

folding the security document such that part only of the light beam from the light beam source passes firstly through the second at least partially transparent portion before being transmitted through said first at least partially transparent portion, said second at least partially transparent portion thus acting as a pseudo point light source.

10. Method according to any one of the preceding claims, wherein the security document includes an optical image or device, applied to the opacifying portion, which interacts with the patterned beam impinging on the opacifying portion to create a visual security effect, the method further including the step of:

verifying the presence of the visual security effect.

11. Method according to claim 10, wherein optical image or device is a printed image substantially corresponding to or complementing the patterned image projected onto the viewing surface.

12. Method according to either of claims 11 or 12, wherein the optical image or device is a reflective foil OVD or other like device.

13. Security document including a first at least partially transparent portion and an optical projection element within or superposed with the first at least partially transparent portion, the optical projection element acting to transform a light beam passing from a light beam source through the first at least partially transparent portion into a patterned beam of selected design.

14. Security document according to claim 13, and further including an opacifying portion for impingement of the patterned beam thereupon.

15. Security document according to claim 14, wherein the opacifying portion and the first at least partially transparent portion are remote from each other.

16. Security document according to anyone of claims 13 to 15, wherein the optical projection element acts to generate the patterned beam by diffraction of the light beam passing through the security document.

17. Security document according to any one of claims 13 to 16, and including an at least partially transparent substrate having first and second opposing faces, and an opacifying layer applied to at least one of the faces, the first at least partially

transparent portion being applied to leave an uncoated area on the at least one surface.

18. Security document according to any one of claims 13 to 17, and further including a second at least partially transparent portion for transmitting part only of the light beam from the light beam source, the second at least partially transparent portion thus acting as a pseudo point light source.

19. Security document according to any one of claims 13 to 18, wherein the security document includes an optical image or device, applied to the opacifying portion, which interacts with the patterned beam impinging on the opacifying portion to create a visual security effect.

20. Method of producing a security document as described above, including the steps of:

forming an at least partially transparent substrate having first and second opposing surfaces, coating at least one face of the substrate within an opacifying layer, the opacifying layer being applied to leave a first uncoated area on the at least one surface,

conveying the optical projection element into position over the first uncoated area, and

transferring the optical projection element onto the substrate.

21. Method according to claim 20, wherein the optical projection element is conveyed into position over the first uncoated area by and on a transfer foil.

22. Method according to claim 20, wherein the optical projection element is transferred from the foil onto the substrate by hot stamping.

23. Method according to any one of claims 20 to 22, wherein at least one optically variable device is conveyed into position over the first uncoated area and transferred onto the substrate together with the optical projection element.

24. Method according to claim 20, wherein the optical projection element may be transferred onto or into the substrate by embossing.

25. Method according to any of claims 20 to 24, wherein the opacifying layer is applied to also leave a second uncoated area on the at least one surface, the second uncoated area acting as a pseudo point light source when a light beam passes

through the security document in the second uncoated area.

26. Method according to any one of claims 20 to 25, and further including the step of:

applying an optical image or device to an opacifying portion of said opacifying layer.

27. Method according to claim 26, wherein the optical image or device is applied to the opacifying portion by printing.

28. Method according to claim 26, wherein the optical image or device is a reflective foil OVD or like device.

29. Method of verifying the authenticity of a security document, the security document including a first at least partially transparent portion, and an optical projection element within or superposed with the first at least partially transparent portion, the optical projection element acting to transform a light beam passing from a light beam source through said first at least partially transparent portion into a patterned beam of selected design, the method involving the steps of:

positioning the security document so as to enable a user to look at the light beam source through the first at least partially transparent portion, and verifying the presence of an image corresponding to the patterned beam in the user's field of vision.

30. Method according to claim 29, wherein the light beam source produces substantially collumated light.

31. Method according to claim 30, wherein the collumated light is white light.

32. Method according to any one of claims 29 to 31, wherein the light beam source is located at a sufficiently remote distance from the security document that the light beam passing through the optical projection element is substantially collumated light.

33. Method according to claim 29, wherein the light beam source produces substantially non-collumated light, the method including the step of:

placing a screen having a window between the light beam source and the optical projection element, such that the light beam from the light beam source passing through the window is substantially collumated light.

34. Method according to claim 33, wherein the screen is constituted by an opacifying portion of the security document.

35. Method according to either of claims 33 or 34, wherein the window is constituted by a second at least partially transparent portion of the security document.

36. Method according to claim 35, wherein the first and second at least partially transparent portions are remote from each other in order to enable the window to be conveniently placed between the light beam source and the optical projection element.

37. Security document including a first at least partially transparent portion, an optical projection element within or superposed with the first at least partially transparent portion, the optical projection element acting to transform a light beam passing from a light beam source through said first at least partially transparent portion into a patterned beam of selected design, and a second at least partially transparent portion located remotely from the first at least partially transparent portion, the security document being foldable such that the second at least partially transparent portion is able to be placed between the light beam source and the optical projection element in order that the light beam from the light beam source passing through the second at least partially transparent portion is substantially collumated light.